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The **FOURTH EDITION**
MAHOGANY BOOK



[29] Matched
Four piece center
V-matched ends



[30] Matched
Eight piece center
Ribbon stripe ends



The MAHOGANY BOOK

By George N. Lamb

•
Fourth Edition
•

This handbook was originally prepared for the architect, the designer, the maker of cabinet-work and furniture and for those who sell and for those who buy. Today Mahogany has gone to war. Hence this new edition, presenting this most romantic of all cabinet-woods in its latest and its most thrilling role.

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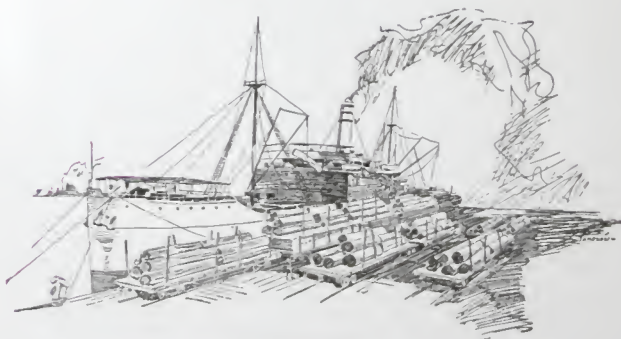
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THE MAHOGANY INDUSTRY

The established Mahogany industry in the United States is made up of companies that are all American and of American origin. None is a branch of a foreign firm nor has any been developed by foreign individuals coming to these shores with a product to sell. It is an old industry, some of the firms dating back to the days of the clipper ships. The manufacture of Mahogany lumber and veneers gives employment to large numbers of people in the United States.

Today the Mahogany industry, recognizing the importance of its product in the victorious outcome of the war, has converted to a very high degree to war production, is even increasing its facilities to meet the tremendous demands of the war program.



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CONTENTS

	Page
Mahogany Goes to War.....	5
Why Mahogany?	7
Physical Properties of Mahogany (Charts).....	10-11
Mahogany in Aircraft.....	12
Motor Torpedo Boats.....	15
Models and Patterns.....	17
Miscellaneous War Uses.....	19
Wartime Furniture	20
Post War Furniture.....	21
The Romance of Mahogany.....	23
The Mahogany Tree.....	24
Mahogany Wood	28
Mahogany Figure	30
Mahogany Lumber	31
Mahogany Veneers	32
Mahogany Plywood	35
"Solid" vs. "Veneer".....	36
Mahogany Finishes	37
Kinds of Mahogany.....	39
Chronological Table of Furniture Styles.....	40
Four Centuries of Mahogany.....	41
The Sixteenth and Seventeenth Centuries.....	41
The Golden Age of Mahogany.....	43
Queen Anne	45
Early Georgian	45
Thomas Chippendale	46
Robert Adam	46
George Hepplewhite	47
Thomas Sheraton	47
Louis XV	48
Louis XVI	48
French Empire	49
Colonial American	50
Federal American	51
Duncan Phyfe	52
Other American Designers.....	52
The Nineteenth Century.....	54
Modern	55
Other Uses of Mahogany.....	57
How To Buy Mahogany Furniture.....	60
About Antiques	60
How To Tell Quality.....	60
Mahogany Labels	62
Care of Mahogany Furniture.....	63
Why Mahogany Leads	64



COVERING A GLIDER WING WITH MAHOGANY PLYWOOD. THIS IS THE TYPE OF WAR WORK GOING ON TODAY IN MANY FACTORIES FORMERLY PRODUCING MAHOGANY FURNITURE.

MAHOGANY GOES TO WAR

A new chapter has been added to the romance of Mahogany. And since this chapter is of utmost importance to every one of us right now and may well hold the key to many future events, we are disregarding the conventions and placing it, not last, but first. Mahogany, you see, has gone to war!

To those accustomed to regard Mahogany only as a beautiful furniture wood, this may seem somewhat startling. In reality, it is neither strange nor sudden. Not even Mahogany could maintain the favored position it has held for generations on the basis of beauty alone. Additional qualities are essential in a fine cabinet wood. These are the qualities that have sent Mahogany to war. It has now been at war, in ever increasing quantities and importance, for over two years.

This by no means implies that the best clothed and best fed armed forces in the world are also living in Mahogany furnished quarters. As a matter of fact, there is sound basis for the widespread anticipation that the manufacture of Mahogany furniture, like that of many products for civilian use, will be very much curtailed. After the war things will be different, of course. But today we must remember that most Mahogany imported into this country must come in ships, and ships are scarce. With the demand for Mahogany for war construction already exceeding supply, the Mahogany that can be imported which is suitable for war use will not be available for furniture, civilian or otherwise. Instead, it will be used to make vital implements of war: aircraft, boats, models and patterns, instruments and instrument cases.

Its widest war use to date is for aircraft. Much wood was used in aircraft construction and Mahogany especially was widely used for propellers during the World War. But after that war, though aviation underwent tremendous development in this country, almost our entire effort went into the all-metal plane. This was only natural. No wood adhesives had yet been developed which would resist rain, sun, sub-zero weather and organisms of decay. Moreover, until the outbreak of the present war, this country had bountiful supplies of aluminum and alloy metals and was very metal-minded. In Europe, however, wood continued to be a basic material in such construction, and much research developed improved techniques in its use.

When the present war started, therefore, it found this country far advanced in the use of metals and metal alloys, but lagging far

behind in a knowledge of the use of wood in aircraft building. As our war program expanded, a few far-seeing people, fearful of a time when our metal supplies might fail us, began to solve the engineering problems involved in the use of wood in airplanes. From the first, Mahogany was the wood chosen as the basis of experiment. As a result, the development of wood aircraft in this country has been largely a Mahogany development.

The next most important use of Mahogany today is in boat building. Since the days when bold buccaneers sailed the Spanish Main, Mahogany has been widely used in sea-going craft of many types. Its most dramatic use today is for those tiny, high-powered "wasps of the sea" which are reaping glory for themselves on both oceans.

The third most important war use of Mahogany is in models and patterns for casting metal parts. Mahogany has long been in demand for this purpose also. But war has vastly expanded this use. Its actual value is all too often lost sight of because Mahogany itself does not show up in the finished product.

Further wartime uses for Mahogany are in the making of mountings or parts for innumerable electrical, scientific and communication instruments and for cases or housings for delicate precision instruments. The layman has little conception of the volume of such equipment necessary to produce and use war supplies. In it Mahogany plays a minor but essential part.

Thus has Mahogany gone to war.



Official U. S. Navy photograph
THE U. S. S. MAHOGANY, SO FAR AS WE HAVE RECORD THE FIRST U. S. NAVAL VESSEL SO CHRISTENED, IS A BOOM NET TENDER (YN) OF THE "TREE CLASS" OF 1940. IN SPITE OF ITS NAME, THIS IS NOT A WOOD BOAT.



Official photograph, U. S. Army Air Forces
MANY OF OUR SUPER TRANSPORT AND CARGO PLANES ARE MADE
POSSIBLE THROUGH THE USE OF MAHOGANY LUMBER AND PLYWOOD.

WHY MAHOGANY?

"But," you ask, "why Mahogany? We have always understood that the United States has limitless forests, the finest sources of wood in the world. When transportation is such a problem, why must we use a wood which can be obtained only thousands of miles away?"

The 18th century cabinetmaker could have answered your question. In the 18th century also, transportation was a problem. If the master furniture maker of that period chose Mahogany nevertheless, he did so because Mahogany combined, not one or even several, but the many qualities necessary in a fine cabinet wood. His judgment has since been confirmed over and over again. The antique which has survived so many generations of use is ample evidence in itself. In addition, present day scientific tests give Mahogany exceptionally high rating among all cabinet woods. These qualities are the reason why we must have Mahogany for war work in spite of the problem of transportation. Other woods possess one or more of these qualities. But Mahogany has them all, so combined that it is difficult to find a substitute wood that will do the job even approximately as well.

To be ideally suited to aircraft construction, for example, a material must first of all combine light weight with strength. The construction of small, high powered speed boats requires in addition a material that resists the action of moisture and the attack of organisms

of decay in tropical waters. To make satisfactory patterns for the casting of metal, a material must not only resist atmospheric and temperature changes, but must be easy to work into the required shape and afford a surface that can be given a very smooth finish. In addition, any material to be used in large-scale war production must be available in large sizes of even, clear, dependable quality.

These, then, are the characteristics which have sent Mahogany to war:

A HIGH RATIO OF STRENGTH TO WEIGHT. Mahogany, though only a medium weight wood, is exceptionally strong. In this respect it outranks any of the woods that might even possibly be available for aircraft and small boat construction.

A HIGH DEGREE OF STABILITY. Because of its unusual resistance to moisture and atmospheric change, Mahogany is less liable to warping, shrinking, swelling and twisting than other woods. Mahogany holds its shape. It stays put.

UNUSUAL SIZE. In its native forest the Mahogany tree grows to immense size, sometimes reaching one hundred and fifty feet in height, six to eight feet in diameter. Thus the Mahogany log can yield unusually large clear pieces.

STRAIGHT GRAIN. Most of us are accustomed to think of Mahogany in terms of figure—the crotch, swirl or stripe which distinguishes that lovely table top. Actually, only a relatively small number of trees run to figure. In fact, most Mahogany logs are comparatively

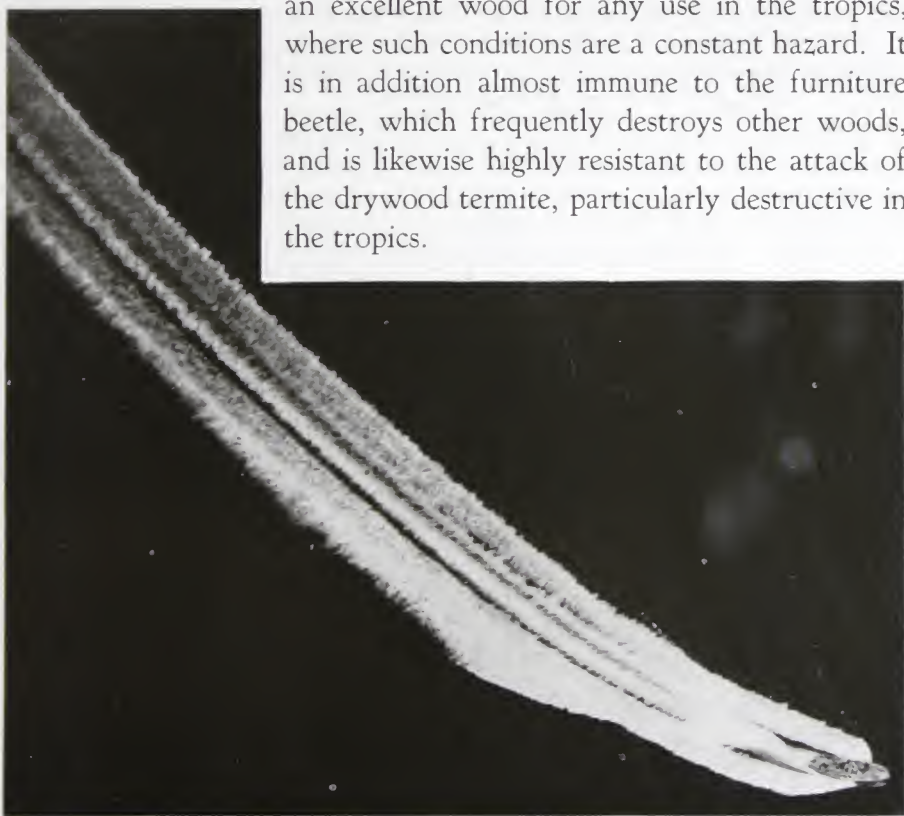


Official U. S. Navy photograph
HIS TRAINING DAYS OVER, THE COMBAT PILOT GOES INTO ACTION! BOMBARDMENT OF WOTJE, ONE OF EIGHT JAPANESE BASES IN THE MARSHALL AND GILBERT ISLANDS, WHERE CARRIER-BASED BOMBERS WRECKED IMPORTANT INSTALLATIONS.

straight-grained. Figure has no place in war construction. Specifications call instead for clear pieces of straight-grained wood.

UNIFORMITY. In addition to its size and large proportion of straight-grained wood, the Mahogany log is distinguished by a total absence of the alternate rings of dense and less dense wood which characterize many other woods. The result is an unusual uniformity of texture, which not only contributes to strength, but is a decisive factor in the speed, ease and success of gluing, machining and other manufacturing processes necessary to the construction of aircraft and boats. In the efficiency with which it takes and holds glues and the ease with which it can be mortised, bored, shaped and turned Mahogany has been given highest rating among all woods which might be available for like construction.

FREEDOM FROM DECAY. Mahogany is particularly resistant to rot, mould and other organisms of decay, both with respect to the atmosphere and in contact with the soil. Thus it is an excellent wood for any use in the tropics, where such conditions are a constant hazard. It is in addition almost immune to the furniture beetle, which frequently destroys other woods, and is likewise highly resistant to the attack of the drywood termite, particularly destructive in the tropics.



Official U. S. Navy photograph
THE LITTLE PT BOAT IS DOING A BIG JOB EVERYWHERE IN THIS WAR, ON THE PACIFIC, IN THE ENGLISH CHANNEL, OFF THE COAST OF AFRICA. BUILT FOR SPEED, IT MAKES EXCELLENT USE OF THE EXCEPTIONAL PROPERTIES OF MAHOGANY.

KILN DRYING. Time is a decisive factor in war production. Thus another of the advantageous qualities of Mahogany is the fact that, once it has been cut from the log, it can be properly dried in a minimum of time and without waste.

SUPERIOR FINISHING. In war construction as in furniture making, the wood which has a natural affinity for modern finishes offers many advantages. The finish, you know, seals the wood, further insuring its resistance to moisture and temperature changes. In this respect, Mahogany is outstanding. Its texture takes and holds finishes unusually well.

Two more detailed and technical breakdowns of these inherent characteristics follow:

RECORD OF STABILITY

Here is the scientist's explanation for Mahogany's unusual ability to keep its shape under changing moisture conditions. The first three columns of figures show the percentage of shrinkage which takes place in various hardwoods as the green wood dries and becomes suitable for use. There are three columns, because such shrinkage must be figured three ways, first, in the actual volume; second, in the direction between the bark and center of the log, called *Radial Shrinkage*, and third, in the direction of the circumference, called *Tangential Shrinkage*. In all three, Mahogany shows a minimum shrinkage.

Even more important, Mahogany shows also a minimum variation between radial and tangential shrinkage. Radial shrinkage is always less than tangential. But the ratio between them is a determining factor in a wood's resistance to warping and twisting. Since the fourth column shows the ratio between the two, the highest figures indicate the highest relative stability.

HARDWOODS	Percentage of Shrinkage in Volume	Percentage of Radial Shrinkage	Percentage of Tangential Shrinkage	Ratio of Radial to Tangential Shrinkage
Mahogany, Cuban	6.0	2.7	3.3	81.8
Mahogany, Cent. Amer	7.7	3.5	4.8	73.0
Mahogany, African.....	8.8	4.1	5.8	71.0
Walnut	11.3	5.2	7.1	73.2
Yellow Poplar.....	11.4	4.1	6.9	62.7
Cherry	11.5	3.7	7.1	52.1
Maple, Silver.....	12.0	3.0	7.2	41.6
Ash, White.....	12.6	4.3	6.4	67.2
Willow	13.3	2.2	8.2	27.0
Maple, Sugar.....	14.4	4.9	9.1	53.8
Elm, American	14.4	4.2	9.5	44.2
Gum, Red	15.0	5.2	9.9	52.5
White Oak	16.0	4.8	9.2	52.2
Hickory, Shagbark.....	16.0	6.5	10.2	63.7
Pecan	16.0	4.9	8.9	53.9
Southern Red Oak	16.3	4.5	8.7	51.7
Beech	16.5	4.6	10.5	42.8
Birch, Yellow	17.0	7.9	9.0	88.0

**AVERAGE PHYSICAL AND MECHANICAL PROPERTIES OF
GREEN AND AIR SEASONED MAHOGANY**

*Based on Tests of Small Clear Specimens Two by Two Inches in Cross Section
Bending 28-inch Span*

(U. S. Forest Products Laboratory)

SPECIES: COMMON AND BOTANICAL NAME, LOCALITY WHERE GROWN	(Khaya sp.) (Africa)	(Swietenia sp.) (Mexico)	(Swietenia sp.) (Northern Cuba)
NUMBER OF TREES.....	6	9	1
Note: — Values for green timber on first line, for air dry on second line.			
MOISTURE CONTENT — %.....	55 12	58 12	48 12
SPECIFIC GRAVITY OVEN DRY BASED ON:			
Volume when tested.....	.43 .45	.45 .46	.57 .59
Volume when oven dry.....	.475061
SHRINKAGE GREEN TO OVEN DRY CONDITION — %			
In volume.....	8.8	7.7	6.0
Radial.....	4.1	3.5	2.7
Tangential.....	5.8	4.8	3.3
STATIC BENDING			
Fiber Stress lbs. per sq. in.....	5,050 7,890	6,120 8,830	4,560 7,100
Modulus of rupture lbs. per sq. in.....	7,600 10,690	9,240 11,220	8,250 9,600
Modulus of elasticity (1000 lbs. per sq. in.)	1,180 1,480	1,290 1,430	1,070 1,190
Work to max. load (inch lbs. per cu. in.)	8.5 7.8	10.2 6.8	8.6 6.2
IMPACT BENDING—50-pound hammer HEIGHT OF DROP TO CAUSE COMPLETE FAILURE (Inches).....	26 22	27 22	23
COMPRESSION PARALLEL TO GRAIN CRUSHING STRENGTH (Pounds per sq. in.).....	3,670 5,700	4,540 6,420	4,170 6,250
COMPRESSION PERPENDICULAR TO GRAIN, FIBER STRESS AT PROPORTIONAL LIMIT (Pounds per sq. in.).....	650 980	710 1,210	980 1,760
HARDNESS:—Load required to imbed a 0.444-inch ball to one-half its diameter (Pounds)			
End }	570	750	990
Side }	1,080	880	1,350
	510	650	980
	790	760	1,350
SHEARING STRENGTH PARALLEL TO GRAIN (Pounds per sq. in.).....	1,270 1,340	1,310 1,060	1,540 1,480

Note—We have printed air dry figures in heavy type.



Official photograph, U. S. Army Air Forces
THE GLIDER FIGURES LARGE IN THIS WAR, PROMISES A NEW MODE OF CIVILIAN
TRANSPORTATION IN THE FUTURE AMAZING DEVELOPMENTS IN THIS TYPE
OF AIRCRAFT ARE BEING MADE POSSIBLE BY THE USE OF MAHOGANY PLYWOOD.

MAHOGANY IN AIRCRAFT

Air power, all agree, will be a controlling factor in this war. As a result the contribution of Mahogany to the expansion of our air power is a vital one.

Specific details of that contribution must, of course, remain secret for the time being. But certain facts about the general processes involved in wood aircraft construction can and should be told. They are the processes which promise to alter many of the familiar aspects of daily living for you and me.

You have read, perhaps, about "plastic" airplanes. The term is improperly used. So-called "plastic" airplanes are in reality wood airplanes. Plywood airplanes, to be exact. Because it was only with the development of modern plywood that the modern wood airplane was made possible.

Plywood, as you may know, is a composite board made of several sheets or plies of wood veneer glued together with the grain of each sheet running at right angles or diagonally to the grain of the adjacent sheet. For its complete story, turn to page 35 of this book. But realize meanwhile that while "veneering" was done by the ancient Egyptians, modern plywood, the type which made possible the modern wood airplane, is something of a revolution.



Official photograph, U. S. Army Air Forces
THIS TWIN-MOTORED CESSNA TRAINING PLANE IS MADE OF MAHOGANY PLYWOOD.

Behind this revolution lies a new method of gluing the sheets together, bonding them together, to be a little more technical. It came into being with the discovery of synthetic resin glues. It is necessary merely to place these synthetic resin glues as a thin sheet or powder between the layers of wood and subject the whole to heat and pressure, to make a waterproof bond that is not only stronger than the wood itself but is also chemically inert and not subject to attack by organisms of decay. It is because the resins used in making these bonds are also used for making plastics that the term "plastic" aircraft came into being. The correct name is resin-bonded plywood.

The strategic value of the resin-bonded plywood plane lies not only in performance but in simplification of the manufacturing process.



Official photograph, U. S. Army Air Forces
IN AIRCRAFT, RESIN-BONDED MAHOGANY PLYWOOD'S GREATEST CONTRIBUTION TO DATE IS IN TRAINING PLANES LIKE THIS NORTH AMERICAN BASIC TRAINING SHIP.

Example is the "cooking" process, which starts with a quickly made wooden mold, proceeds with spreading over it alternating sheets of wood and glue, and ends with the application of heat and vacuum pressure inside a rubber bag, which encloses the whole, assuring even all-over treatment. The resulting unit is tough and durable, without seams. Entire wings, fuselages, and tail assemblies can be made in one operation by this process. And the increased speed at which they can be produced may mean the difference between victory and defeat.

So far in this country resin-bonded wood aircraft have been used largely for training purposes. Prospects are that, as we gain experience through actual use, resin-bonded plywood will be found more efficient even than metal for many parts of combat and transport planes.

Mahogany, as has been said, has played a basic role in this development. If the supply of Mahogany could be sufficiently expanded, it is safe to say that very little of other woods would be used for aircraft plywood. The production program, however, has now grown beyond the limits of the supply of Mahogany. To find a substitute has been a very difficult problem. Not only is it true that few woods approximate the desirable qualities found in Mahogany, but losses in manpower and operating facilities have affected the entire lumber industry to such an extent that the demand on all woods is today greater than production.



MASTER PATTERN FOR THE REAR SECTION OF THE FUSELAGE OF A BOMBER PLANE BEING MODELED FROM MAHOGANY. THUS MAHOGANY FIGURES BOTH IN AIRCRAFT PRODUCTION AND IN THE FINISHED PRODUCT.

MOTOR TORPEDO BOATS

As in aircraft and for substantially the same reasons, Mahogany is the preferred wood for several types of small boats which are playing so valiant a part in this war on both oceans.

Most familiar of these, perhaps, are the tiny Motor Torpedo Boats — more commonly called “P T” boats — whose activities run like a gallant red thread through the confused and incredible action in the Philippines and more recently at Guadalcanal and in the African campaign. Their story appears in “They Were Expendable” by W. L. White (Harcourt, Brace and Company).

The P T boats of “They Were Expendable” were Mahogany boats. Unlike airplanes, however, they were constructed of both Mahogany lumber and plywood. A mere seventy feet long and about twenty wide, they were powered by three marine motors which sent them “roaring over the top of the water about as fast as a Packard automobile ever gets a chance to travel on a highway,” but which, to maintain that speed, should be changed every few hundred hours! The hull itself, meanwhile, must take the terrific impact of power, speed and waves as a matter of course. And the Mahogany hull of a PT boat does it!



Official U. S. Navy photograph
LIEUTENANT COMMANDER
JOHN D. BULKELEY, U. S. N.



Official U. S. Navy photograph
ONE OF THE SIX BOATS OF MOTOR TORPEDO BOAT SQUADRON THREE, WHICH
EVACUATED GENERAL MacARTHUR AND PRESIDENT QUEZON AND WHICH
FIGURE IN W. L. WHITE'S STIRRING BOOK, THEY WERE EXPENDABLE.

The value of the PT boat lies in its speed and maneuverability. It's not built to withstand bullets. Not an ounce of armour protects its three-quarters inch Mahogany plywood decks and shield. It's a "little eggshell, designed to roar in, let fly a Sunday punch and then get the hell out, zigging to dodge the shells!"

Yet the enemy soon learned its prowess and took care to let it alone. After one encounter the Tokyo radio reported a new American secret weapon—"A monster that roared, flapped its wings and fired torpedoes in all directions!" From December 7, 1941, until the middle of February, Motor Torpedo Boat Squadron Three sank a hundred times its own tonnage in enemy warships and accounted for probably ten Japanese for every man in its combined crews!

Meanwhile, the Japanese pushed MacArthur's gallant men into the fox holes of Bataan. Slowly those who were left came face to face with the inevitable. The help of which they were at first so confident was not coming. Motor Torpedo Squadron Three too was faring badly. Not one boat of the six was the victim of the Japanese. But treacherous coral reefs had accounted for some. Others their own crews had destroyed to save them from enemy capture. The rest, crippled for want of time and parts to make repairs, running on sabotaged gasoline, at last lacked even the torpedoes to make them effective. They too finally acknowledged themselves expendable, their work done.

But the work of the small Mahogany speed boat in this war is by no means done. It proved itself in the Phillippines, earning the confidence and commendation of General MacArthur himself. Today, the survivors who tell the story of "They Were Expendable" are giving future PT boat officers and crews the benefit of their experience. And today all the Mahogany available for that purpose is going into more "wasps of the sea."



Official U. S. Navy photograph
THE MOTOR TORPEDO BOAT IS "A LITTLE EGGSHELL, DESIGNED TO ROAR IN, LET FLY A SUNDAY PUNCH AND THEN GET THE HELL OUT, ZIGGING TO DODGE THE SHELLS."—THEY WERE EXPENDABLE. W. L. WHITE.

MODELS AND PATTERNS

In the story of Mahogany models and patterns there is little of the thrill inherent in the story of our modern air and sea craft. It is none the less important for that. The Mahogany that makes possible the quick and efficient casting of vital metal parts is indispensable though unglorified. For in this prosaic but fundamental role Mahogany is making vital contribution to our entire war effort.

As a pattern material Mahogany has no equal. Chief among the reasons are the very qualities the 18th century cabinetmaker prized so highly. Mahogany can be machined and cut with hand tools to a high degree of accuracy, being neither so hard as to make cutting difficult nor so soft as to lack the requisite strength. It has the inherent ability to hold its shape under variable moisture conditions.

As a result Mahogany has long been used for patterns. In fact, in pre-Pearl Harbor days the standard pattern materials were pine, Mahogany and aluminum. If the pattern was bulky and needed to be used only a few times, it was made of pine. If the pattern was small and intricate, it was made of Mahogany. In bulky patterns made to be used over and over, the parts getting the wear were faced with Mahogany. When either type was designed to give heavy and continuous service, it was made of pine or Mahogany and an aluminum pattern was cast from it. As this metal pattern wore out, others could be cast from the master wood pattern.

With the war came a tremendous speeding up of production to



WITH THE TREMENDOUS SPEEDING UP OF WARTIME PRODUCTION TO SUPPLY COUNTLESS CASTINGS FOR GUNS, SHIPS, AIRCRAFT AND TANKS, AS WELL AS FOR THE MACHINERY TO MAKE THEM, MAHOGANY HAS ASSUMED A NEW IMPORTANCE AS A PATTERN MATERIAL.



MAHOGANY PATTERN LUMBER IS AN IDEAL MATERIAL FOR FRAGILE MOLDS LIKE THESE, WHICH MUST BE HELD CLOSE TO DELICATE DIMENSIONS AND HOLD THEIR SHAPE INDEFINITELY WITHOUT DISTORTION.

supply the hundreds of thousands of castings required not only for actual guns, ships, aircraft and tanks, but for the machinery necessary to produce them. Aluminum immediately became a critical material, vitally needed in a hundred places in the all out program. There simply wasn't enough to go around.

As a result more and more of this essential production must today rely on wood patterns. Pine must bear its share of the burden, of course. Pine is more available than Mahogany. But pine wears out quickly with severe use. It takes but a little longer to make a Mahogany pattern, and it will stand up three times as long.

One solution, of course, would be simply to make three patterns out of pine instead of one from Mahogany. But everywhere pattern shops are running to capacity in equipment and man power. Neither facilities nor the experienced pattern maker are available to produce more than the minimum number of patterns actually needed.

In this emergency, pattern makers are using pine wherever they can, using Mahogany and facing with Mahogany only when they must. The demand on Mahogany for this purpose is nevertheless a very heavy one. Dozens of large firms, making the most vital war equipment, tell the same story: "As compared to the amount of pine we use, we do not need much Mahogany. But what we do need, we need badly, and must have if we are to maintain production."

So here again, though without fanfare, Mahogany has gone to war, is doing its part in tipping the scales toward Victory.

MISCELLANEOUS WAR USES

In a mechanized war like this one, the difference between success and failure and thousands of lives often depend upon many types of communication instruments, other delicate instruments and precision tools, intricate, costly and difficult to replace. The exact nature of many of these must now, of course, be shrouded in secrecy. Nevertheless, when the war is won, much credit will be due the scientists of this country, who are daily contributing new and improved devices to help our armed forces. And when that day comes, a share in that credit will be due Mahogany.

Some of the instruments of modern warfare actually have wood parts. More of them have wood mountings or are protected and carried in wood cases, shaped to fit the instrument exactly. In all such uses, where strength, an affinity for precision machining and the ability to keep its shape indefinitely are prerequisite, Mahogany is the preferred wood.

For such use, fortunately, lumber specifications do not overlap those covering Mahogany destined for larger and more spectacular uses. Small instruments and cases, to give just one example, can in most instances be made from grades of Mahogany lumber which are not suitable for the construction of Mahogany boats. Boats require Mahogany in larger dimensions than can be secured from the lower grades of lumber.

The success or failure of the most carefully planned and efficiently conducted campaign often depends upon little things. Such are precision instruments and the mountings and cases which permit them to be used and carried safely wherever needed. In them, consequently, a great deal of Mahogany is performing a small but most significant part in this war, not only in the actual production of equipment, but in regulating and guiding our major offensives all over the world.



MAHOGANY HAS ALSO GONE TO WAR IN INSTRUMENT CASES LIKE THESE, RESPONSIBLE FOR PROTECTING DELICATE, COSTLY AND SOMETIMES DIFFICULT TO REPLACE TOOLS AND PRECISION INSTRUMENTS.

WARTIME FURNITURE

The results of the foregoing are inevitable. We can't have all the Mahogany airplanes we need and all the Mahogany furniture we'd like to have. In fact, when the furniture now in process at the factory and already in the warehouse and store is exhausted, the consumer will find her choice comparatively limited.

The smaller factory unsuited for conversion to war work and remote from areas of acute labor shortage will be able to maintain partial production for some time to come without using men or materials needed for war production. And it now seems quite possible that out of the Mahogany imported for war use there will always be some part which will not meet war use specifications. This residue may well furnish certain amounts of both lumber and veneer for civilian use.

But such production can at best furnish only a fraction of the amount of fine Mahogany furniture from which the buyer has been accustomed to make her selection. Until the war takes a turn for the better, even this amount may tend steadily to diminish. But once that turn has been made, Mahogany furniture will definitely be on its way back again.



FURNITURE LIKE THIS, IN WHICH THE CLASSIC LINES OF THE 18TH CENTURY HAVE BEEN REPRODUCED IN BEAUTIFUL MAHOGANY, IS AGELESS, WILL BE AS PLEASING AFTER THE WAR AS IT WAS BEFORE.

POST WAR FURNITURE

And what will Mahogany furniture be like after the war? With almost breathtaking changes already shaping up in foods, fabrics, automobiles, some change in furniture also seems inevitable.

The most significant factor in that change will undoubtedly be in the use of plywood and an extension in the use of synthetic resin glues. By that time the industry, profiting by the experience of war production, may have evolved a satisfactory way of resin gluing joints as well as bonding flat or curved panels. By that time also both manufacturing and distribution costs may well be substantially decreased. The net result should be furniture better in design, workmanship, material and finish, at a far lower cost than before the war.

Another factor, however, will be the somewhat questionable influence of wartime manufacturing conditions and wartime living conditions. Even a few years of life in small defense-area quarters, with homemaking streamlined to permit the lady of the house to hold down her factory job, are bound to have their effect on all home equipment. And wartime restrictions seem always, unfortunately, to



AN IMPORTANT CURRENT TREND WHICH PROMISES TO INFLUENCE POSTWAR FURNITURE IS TOWARD THE CONTINUOUS UNIT SUITE, WHICH PUTS TO MAXIMUM USE A LIMITED AMOUNT OF SPACE.



"ROSITA," CARVED FROM MAHOGANY BY SUZANNE SILVERCRUYS, AWARDED HIGHEST HONORS AT THE ANNUAL EXHIBITION OF THE NATIONAL ACADEMY OF DESIGN AND ALSO AT THE DAYTON ART INSTITUTE. MAHOGANY HAS ALWAYS BEEN A FAVORITE MATERIAL OF THE WOOD CARVER.

substitute superficial values for basic quality.

The probable result will be another so-called "modern" period. In the last modern period, if you remember, almost a decade of trial and error was necessary to temper initial crudities and rework them into an approximation of lasting beauty. Nor was this development entirely a forward one. When the war opened our most pleasing modern furniture designs were obviously a mere simplification of the lines of beauty established during the 18th century and proved in every generation since. In any new modern period, history is bound to repeat itself.

The transition, however, may be shorter and less painful this time than last. It may be a year or even several before the manufacturer can fully reconvert his facilities from war production to civilian and begin to fill the show rooms with post war furniture.

Meantime, people of taste will have had their fill of wartime furniture, will have become skeptical even of any revolutionary movement springing up immediately after the war.

As a result, we predict that when the traditional beauty of 18th century Mahogany furniture is again available after the war, it will be in greater demand than ever. Eighteenth century design, you must remember, has already outlived several major wars. It will outlive this one also. The woman fortunate enough to have possessed good traditional Mahogany before the war, will, in fact, find its beauty and value, not diminished, but heightened in the interval. For when Mahogany comes home from war, it will return prepared to continue the romance which it has been carrying on for so many generations with fine furniture lovers everywhere!

THE ROMANCE OF MAHOGANY

There is romance in all of nature's products. Especially is this true of Mahogany. The story begins in the depths of the tropical jungle. Its climax is the cherished antique, polished by the centuries, and representing not only the height of the art and craftsmanship of the furniture maker, but a sort of peak in gracious living. And in between are rich chapters of human adventure, a varied drama played against the vast background of history.



LARGE MAHOGANY TREE IN CENTRAL AMERICAN JUNGLE.

THE MAHOGANY TREE

In its native jungle the Mahogany tree grows to immense size, as much as one hundred and fifty feet high, ten to twelve feet in diameter. The average tree is three to six feet in diameter. There are no Mahogany forests. Trees grow scattered, here and there, lifting proud but solitary crowns above their lesser neighbors.

Just as the oak may be distinguished from the hickory tree in temperate zone forests, the Mahogany tree has characteristics which distinguish it from other tropical trees. One is its long, clean trunk, sometimes extending sixty to eighty feet to the first limb. Another is its gray-brown bark, fairly smooth for the most part and in ridges or large individual scales.

The leaf is compound, resembling that of the American ash or hickory. The flower is very small, yellowish red and tulip-shaped. The seed grows in a large woody capsule, up to five or six inches long,



LARGE CENTRAL AMERICAN MAHOGANY TREE SHOWING BUTTRESSED ROOTS

which is upright on the branch, not pendant. In this capsule the flat, winged seeds are packed tightly in either four or five parallel double rows lengthwise of the container. These seeds, strangely enough, are the mellow golden brown color of well-aged Mahogany!

Mahogany grows only in fairly specific areas. One is the West Indies, particularly Cuba, Santo Domingo and Jamaica, with the same variety occurring in small quantities in the southern tip of Florida. On the American continent Mahogany ranges from southern Mexico, northern Guatemala and British Honduras through Central America to northern Colombia and Venezuela. About twenty years ago Mahogany was found on rivers tributary to the upper Amazon in Brazil and Peru. African Mahogany is produced on the Ivory Coast, the Gold Coast and in Nigeria in West Africa and is found in certain parts of East Africa. Woods alleged to be Mahogany but coming from other than these regions, are not genuine Mahogany.

Botanically Speaking

Although the Mahogany tree has been known to Europeans since shortly after the discovery of America, it was not botanically classified until after 1760, when it was named *Swietenia* by Nicholas Joseph Jacquin of Leyden, in honor of Baron Geraard Von Swieten, botanist



TROPICAL AMERICAN MAHOGANY
(*Swietenia macrophylla*)

- A. Leaf (Compound with leaflets like an ash leaf).
- B. Flower cluster (Few survive, grow into large pod with many seeds).
- C. Fruit (A pod larger than an egg that splits open liberating many seeds).
- D. Seed (Flattened with wing mostly at one end).
- E. Flower (In cross section).

AFRICAN MAHOGANY
(*Khaya ivorensis*)

- A. Leaf (Compound with leaflets like an ash leaf).
- B. Flower cluster (Few survive, but grow into large pod with many seeds).
- C. Fruit (Similar in structure to *Swietenia* but shorter and more rounded).
- D. Seed (Flattened but winged all the way around).
- E. Flower (Similar in structure to *Swietenia*).

and physician of the same city. In 1762 the Mahogany trees of Central America and the West Indies were classified as a single species and designated *Swietenia mahagoni* by Linne, founder of modern botany. In 1886 the principal Mahogany from the mainland of Central America was described as *Swietenia macrophylla* by King, from specimens originally from Honduras.

Long after it had been discovered in America, Mahogany was also found on the west coast of Africa. This African Mahogany was first botanically classified by Desrousseaux as *Swietenia senegalensis*. In 1830 Jussieu differentiated geographically between the American and African species, proposing that the latter be classified as *Khaya senegalensis*. Eventually several species of the genus *Khaya* were recognized, the most plentiful being *Khaya ivorensis*.

From Jungle to Mill

From the beginning Mahogany logging has been a long, difficult battle with the trackless tropical wilderness. Since the trees grow scattered, an average of only two trees per acre being considered a good stand, the battle must commence with a complete cruise of the area to determine whether it contains Mahogany in paying quantities and conditions that permit getting it out.

At first only the trees on the river banks were cut, and transportation was not a serious problem. Today the Mahogany hunter must go farther into the jungle, cutting main trails and branch trails to each tree. Once the trees were felled, it was customary to entrust the



SOME OF THE MAHOGANY USED IN OUR MOST MODERN WAR EQUIPMENT MUST STILL BE TAKEN FROM THE JUNGLE BY OXEN.

prodigious task of hauling the logs over these trails, in Africa to man power, in America to cattle. Even today, though tractors are being widely used, it is still often necessary to resort to men or oxen.

At the trail's end there is usually a dry creek bank, where the logs are scaled and branded and left to await the time when the flood season will fill that creek. Much depends on that flood. If it is too violent, streams overflow and the logs are lost in the jungle. If it recedes too rapidly, logs may be stranded until the following year. As a result, when the flood comes, all other work stops and a night and day drive is on to launch the logs and get them down to deep water as soon as possible. In certain narrow swift rivers the flood may be so violent that in spite of rafting, booms and tug boats a season's cut may be swept to sea and lost.

Those logs that do reach deep water are there formed into rafts and floated down to the ocean, where a steamer awaits her load. Here is perhaps the most hazardous part of the journey. Between the comparatively calm river and the steamer, often anchored a mile from shore, are sand bars, threatening waves and sharks. Many a valuable Mahogany raft has been broken apart by wild water surging over a treacherous bar, and its logs scattered at sea and up and down the beach. And many a load, seemingly safe aboard ship, has been subsequently lost in a tropical hurricane. The hazard of this journey today, of course, has been immeasurably increased by enemy submarine attack.

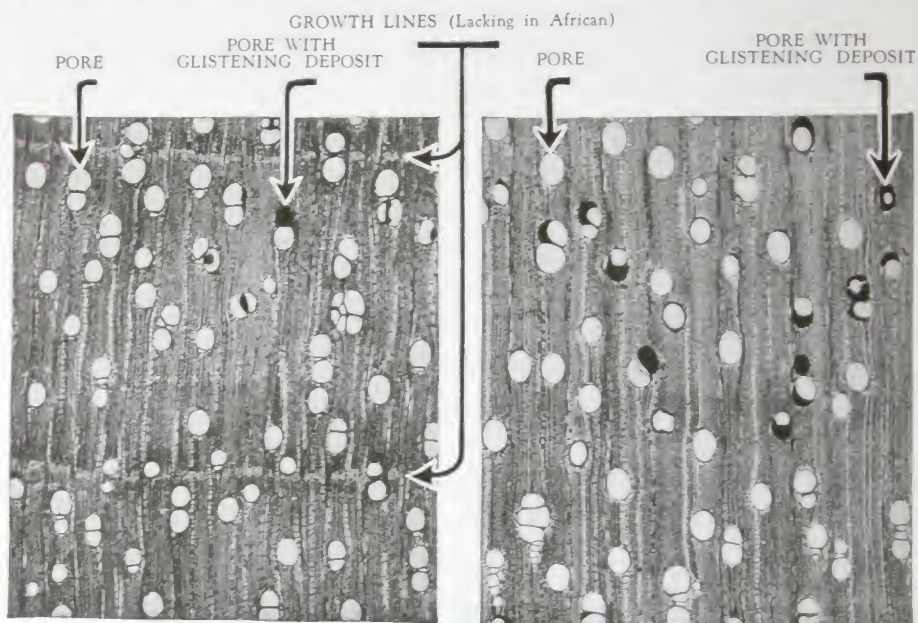


WHERE CONDITIONS PERMIT, MAHOGANY LOGS ARE TODAY TRANSPORTED FROM JUNGLE TO RIVER BANK BY MODERN TRACTORS.

MAHOGANY WOOD

The beauty of Mahogany has become a tradition, so that for many people it is the most familiar characteristic of Mahogany wood. To the wood technologist, however, wood is a matter of pores, grain, figure, color. To the furniture maker it is a matter of physical properties. In all, Mahogany shows superior characteristics.

When one looks at an end surface of Mahogany, for example, the pores show up even to the naked eye as tiny dots or pin pricks. On



TROPICAL AMERICAN MAHOGANY—Cross Section magnified 15 times

AFRICAN MAHOGANY—Cross Section magnified 15 times



AMERICAN MAHOGANY—Showing "storied" rays tangential section. Magnified 5 times.



AFRICAN MAHOGANY—Showing staggered rays tangential section. Magnified 5 times.



MAHOGANY LOGS STORED ON BANK OF SMALL STREAM AWAITING FLOOD TIME

more or less longitudinal surfaces, these same appear as fine pen lines, dashes or dots, according as the cut is with the grain or slightly across it. These pores, though uniformly scattered, vary somewhat in size, and some of them appear to contain a dark glistening substance.

Looking again at the end section, one discovers that American Mahogany shows concentric growth lines, African does not. Running from the center of the tree to the circumference, more or less parallel and about the thickness of a pore apart, are the fine ribbony bands of tissue that make the inconspicuous "flake" or "sycamore grain" that shows when the wood is cut on the radius, or quartered.

When the log is cut at right angles to the radius, a tangential surface is produced. On such a surface the pores show as long, irregularly parallel lines with numerous very short fine dashes appearing between them when seen under the magnifying glass. These are the end views of the pith rays. In American Mahogany they appear storied, that is, in rows, while in African Mahogany they are staggered.

The inherent physical properties which have made Mahogany the favorite cabinet wood of master craftsmen for four centuries and today account for its wide use in war production are described on pages 8 through 11.

Mahogany Figure

To the layman, again, figure is one of the distinctions of the beauty typical of Mahogany. In large measure, this criterion is sound. Mahogany figures are distinctly tropical in character and are an important distinction between this wood and woods produced in temperate zones.

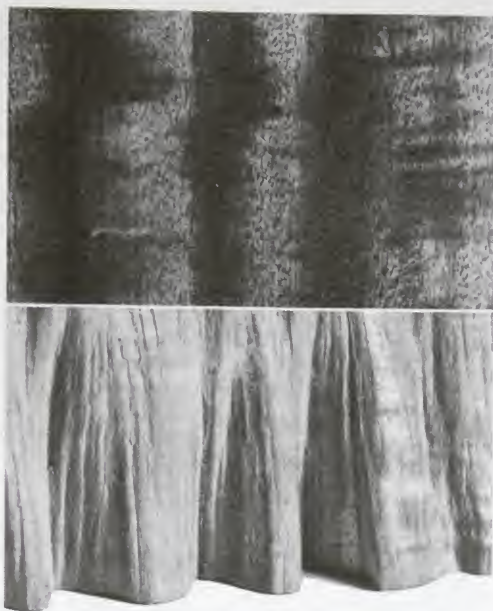
Mahogany figure is the result of turns and twists in the grain. The figure is accentuated by the pores, which lend depth to the wood, so that the color seems to come from below the surface, and the figure itself catches the light like moire silk. In fact, if the eye moves along a Mahogany surface the long way of the grain, light and dark areas interchange with an almost iridescent effect.

STRIPE. The figure most commonly seen in Mahogany is the plain stripe, which shows more or less in all Mahogany that is cut on the quarter. The stripe may be broad or narrow, bold or mild, long or broken. The flat cut or plain figure is another of the two basic patterns, to which all other figures are added.

CROTCH. The Mahogany that produces the famous crotch figure comes from the trunk of the tree just below where it forks into two nearly equal branches. The outer portions of this block, top and bottom, produce swirl figure veneers that gradually merge into the true crotch figure produced from the central part of the block. Note that the crotch figure is inverted when used on the vertical surfaces of furniture.



MOTTLE. The figure to the right shows Mahogany split on the quarter with the grain. The alternate out and in direction of the grain produces the typical stripe figure. If in addition there are also cross wrinkles in the grain, the stripe figure becomes a mottle. Such variations produce endless varieties and combinations of stripes, broken stripes, mottle and fiddleback figures.



Mahogany Lumber

When the woodworker and cabinetmaker select a wood, they judge it not only for beauty and stability, but also according to its freedom from waste and sapwood, which in some woods is a disfiguring lighter color, its availability in large, clear cuttings uniform in color and texture, and the ease with which they can produce the smooth surface requisite to a fine finish. Their unanimous preference for Mahogany indicates that Mahogany possesses all these qualities in unusual degree.



AFTER A HAZARDOUS VOYAGE FROM THE TROPICS. THE STEAMSHIP UNLOADS A CARGO OF MAHOGANY AT AN AMERICAN SEAPORT.



THIS GIANT KNIFE SLICES THIN MAHOGANY VENEERS AS ONE MIGHT SLICE CHEESE.

As a matter of fact, no American hardwoods and few woods of any kind produce the excellent grade of lumber found in Mahogany. The Mahogany industry has always followed the policy of improving rather than lowering its standards. As a result, grade for grade, Mahogany is far superior in lengths, widths and freedom from defect to any other cabinet wood. There is, moreover, a grade and thickness of Mahogany lumber for every use. It is the only cabinet wood in which it is possible to supply figured lumber in substantial quantities and at only a nominally higher cost than plain. Mahogany lumber is graded according to the rules of the National Hardwood Lumber Association.

Mahogany Veneers

Most highly figured Mahogany surfaces, however, are not lumber but veneer. The term is a familiar one. Mahogany veneers go into furniture as figured faces for plywood. All wood that is not straight-grained has a tendency to warp or twist. Because of its irregular grain, moreover, highly figured wood is difficult to cut and sand to a smooth surface in lumber form. Cut very thin, however, and glued

flat to a plain wood, the figured face not only loses its ability to warp or twist, but makes a smooth and very beautiful surface.

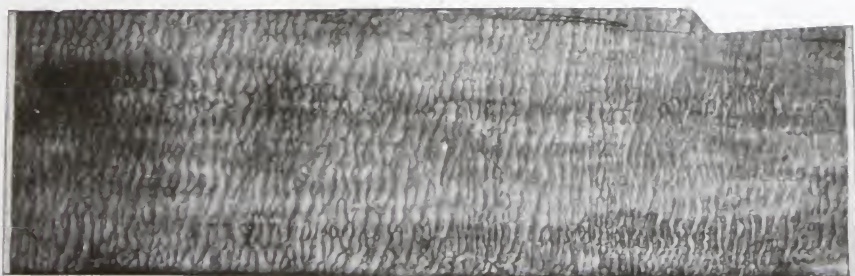
Though Mahogany veneers have been used in increasing amounts for over two hundred years, large-scale production of really fine veneers has been developed only within the last century, particularly in the last fifty years. One factor in this development is a change in the method of producing veneers.

Earlier veneers were sawed from the block, a method which is still producing excellent veneers today where unusual thickness and lengths greater than sixteen feet are required. In sawing, however, usually half the block goes into sawdust. This method is consequently wasteful and expensive.

Slicing is a newer, more economical method, producing the standard thickness of only one twenty-eighth of an inch with little waste. In slicing, the block is clamped in position on a moving plate, on which it is swung down at an angle past the knife edge, so that a slice of



A LARGE AND OLD WEATHERED MAHOGANY LOG, THE SURFACE OF WHICH REVEALS THAT IT IS HIGHLY FIGURED. A SHEET OF THE VENEER CUT FROM IT SHOWN BELOW



veneer is removed with each swing. These sheets are then dried and piled back in the sequence in which they came from the block to facilitate making matched patterns.

Like Mahogany lumber, Mahogany veneers have all the qualities which endear them to the furniture maker—size, freedom from defect, uniformity in color and texture. Much of our wartime veneer is cut very thin. Mahogany, with its even texture, lends itself perfectly to such cutting.



REPRODUCTION OF THE
FAMOUS VAN PELT
CHIPPENDALE
MAHOGANY HIGHBOY

REPRESENTS THE CLIMAX IN
DESIGN AND CRAFTSMANSHIP
OF THE PHILADELPHIA GROUP
OF CABINETMAKERS (CIRCA
1770). THIS PIECE BROUGHT
\$44,000 AT THE REIFSNYDER
SALE IN 1929, AN ALL TIME
RECORD

Mahogany Plywood

One of the most important ingredients in much furniture of current manufacture, and one due to exert a strong influence on furniture after the war is plywood. Plywood, as you know, is a composite board made of several thin layers of wood glued together with the grain of each running at right angles to that of the next. The number and character of the layers varies according to use and quality. Typically, furniture plywood is either three or five ply, the latter usually considered the better.



A CUT BACK SKETCH SHOWING
A SECTION OF A 5-PLY
MAHOGANY PANEL

Even in the past the use of plywood has given the furniture manufacturer certain advantages. Though it was not true that plywood was actually stronger than solid lumber, it is true that wood is stronger with the grain than across it and that plywood thus served to equalize strength and shrinkage in both directions. It is also true that the use of richly figured veneers made possible a more decorative surface than was within reach in solid lumber. Thus for large, sheer surfaces especially, plywood had distinct advantages in appearance, weight and stability.

As in all man-made products, however, plywood varies tremendously in quality. The making of high grade plywood requires extreme care. Core stock must be dried to proper moisture content, perfectly smooth, flat and free from defect, skillfully edge joined and glued. Cross-bandings must be of uniform thickness, also properly dried and joined. Face veneers likewise require exact drying, matching and tapping, and should be the same on both sides of the panel.

Even with all materials in proper condition, success or failure lies in the kind, the amount and application of the glue, in proper drying and sanding after gluing. As a result, plywood varies according to the care and skill put into its making. There is much excellent furni-

ture plywood on the market. At the same time, in lower grades of furniture, plywood often fails to give satisfaction.

The recent discovery of synthetic resin glues, however, had even before the war done much to revolutionize the manufacture of furniture plywood. Not only do they reduce the difficulties of manufacture, but they produce a plywood which actually is stronger than solid lumber of much greater weight. In addition, the tremendous use of plywood in war production will vastly improve both method and product. Mahogany plywood consequently promises to play a very important role in both the design, quality and price of post war Mahogany furniture.

"Solid" vs. "Veneer"

The wide and satisfactory use of Mahogany plywood veneer after the war will undoubtedly put an end forever to familiar but unfair comparisons as to the value of solid as opposed to veneered furniture. Meanwhile, however, misapprehensions exist, to the discredit of both. There is the inference that the term "solid Mahogany" indicates an antique. There is the common use of "veneer" to indicate only something that is shoddy and superficial.

As a matter of fact, neither term is any criterion either of age or



THIS CHEST, SOLID MAHOGANY FRAME, TOP, SIDES AND FRONT MAHOGANY-FACED PLYWOOD, SHOWS A BEAUTIFULLY MATCHED CROTCH FIGURE.

of quality. Both bad and good furniture are made both ways. Most Mahogany chairs are made of solid lumber today just as they were during the 18th century. Many of our most modern pieces, as well as some of our most famous and highly valued antiques are supreme examples of the skillful use of veneer.

The difference is, in most cases, merely a practical one. Small carved pieces are more effectively made of solid lumber than of plywood. Large and highly figured panels are more easily produced by veneering than from solid lumber. For the rest, it's a matter of taste. Solid Mahogany is usually conservative in design and figure, depending on line and turning or carving for ornament. Veneer Mahogany is usually of a lighter type, more brilliantly figured. Much furniture is a combination, using solid lumber for structural parts, plywood for surfaces between the framing.

Mahogany Finishes

We finish wood for four very good reasons: to seal the surface against moisture, to facilitate cleaning, to bring out the depth and lustre of grain and figure, to change color or tone.

Mahogany responds as perhaps does no other wood to fine finishing.



THIS CHEST, MADE OF SOLID MAHOGANY LUMBER, SHOWS A MODEST BUT PLEASING FIGURE.

It has therefore suffered the more when poorly finished. The thick reddish hue and hard high lustre of much late nineteenth century Mahogany is an example. The red was a stain. Used first as a perfectly legitimate means of obtaining uniformity of color, it gradually became a disguise for inferior wood substitutes, growing darker and thicker for the purpose, until it all but concealed the natural grain. The lustre was several coats of gloss varnish.

The finest Mahogany finishes are those which do the most to bring out the natural beauty and color of the wood. Outstanding are shellac and wax, and oil and wax, both used extensively during the 18th century and responsible for the mellow gleam on rare old museum pieces and our most superior modern pieces alike. Both require time and skill, and are therefore expensive.

There are today, however, vastly improved lacquer and varnish finishes which cost less. Through them we are now able to reproduce almost exactly the rich patina associated with traditional design. Others, based on bleaching, bring out the full beauty of grain and figure in the lighter honey, wheat and amber tones popularized in modern design.



MODERN LACQUER AND VARNISH FINISHES REPRODUCE ALMOST EXACTLY THE RICH PATINA ASSOCIATED WITH TRADITIONAL MAHOGANY.



MAP SHOWING AREAS WHERE MAHOGANY IS GROWN.

KINDS OF MAHOGANY

WEST INDIAN (*Swietenia mahagoni* Linne)

Source—Cuba and Santo Domingo

Characteristics—Close grain, silky texture, heavier and harder than other Mahogany, with unusual wearing qualities

Color—Yellowish white when freshly cut, changing to golden brown and deep red-brown

Uses—The preferred Mahogany for the finest furniture

TROPICAL AMERICAN (*Swietenia macrophylla* King)

Source—Mexico, Honduras, British Honduras, Guatemala, Nicaragua, Colombia, Venezuela, and the upper Amazon in Brazil and Peru

Characteristics—Straighter grain and more mellow texture than West Indian Mahogany. Larger trees and straighter grain produce longer and wider cuttings

Color—Yellowish white to salmon pink when freshly cut, changing to rich golden brown

Uses—High quality furniture and woodwork. Especially suitable for aircraft and speed boats

AFRICAN MAHOGANY (*Khaya ivorensis* A. Chev.)

Source—Gold, Ivory and Nigerian Coasts of Africa

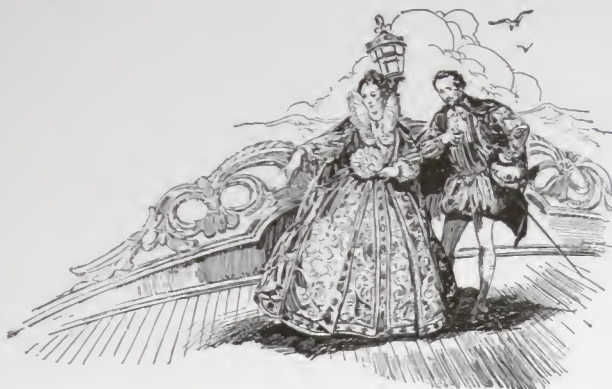
Characteristics—Milder texture, slightly larger pores than American Mahogany. Lavish figure ranging from the simple stripe to rich and complex mottles, crotches and swirls of surpassing beauty

Color—Salmon pink when freshly cut, changing to pale golden brown.

Uses—Because of its lavish figure and unusual log size in normal times, African Mahogany produces three-fourths of all Mahogany veneer.

CHRONOLOGY OF FURNITURE STYLES

ENGLAND			FRANCE			AMERICA	
PERIOD	DATE	SOVEREIGN	PERIOD	DATE	SOVEREIGN	PERIOD	DATE
Tudor	1509-1558	Henry VIII 1509-1547 Edward VI 1547-1553 Mary 1553-1558	Francis Premier	1515-1547	Francis I	Colonial Beginnings	1620
Elizabethan	1558-1603	Elizabeth	Henri Deux	1547-1589	Henry II 1547-1559 Francis II 1559-1560 Charles IX 1560-1574 Henry III 1574-1589		
Jacobean	1603-1688	James I 1603-1625	Henri Quatre	1589-1610	Henry IV	Colonial Colonial Dutch Colonial Elizabethan Colonial Jacobean	1620-1776
		Charles I 1625-1649	Louis Treize	1610-1643	Louis XIII		
		Commonwealth and Protectorate (Cromwell) 1649-1660	Louis Quatorze	1643-1715	Louis XIV		
		Charles II 1660-1685					
		James II 1685-1688					
William and Mary	1689-1702	William and Mary				Colonial William and Mary	
Queen Anne	1702-1714	Anne				Colonial Queen Anne Colonial Early Georgian Colonial Chippendale	
Georgian Chippendale Adam Hepplewhite Sheraton	1714-1811	George I 1714-1727	Regence	1715-1723	Philip Duke of Orleans	Federal Adam Federal Hepplewhite Federal Sheraton	1776-1795
		George II 1727-1760	Louis Quinze	1723-1774	Louis XV (Born 1710)		
		George III 1760-1811 (died 1820)	Louis Seize	1774-1793	Louis XVI		
			Directoire	1795-1799	Directory		
English Regency	1811-1820	Prince of Wales later as George IV 1820-1830	Empire	1799-1814	Napoleon	Duncan Phyfe	1790-1830
		William IV 1830-1837	Provincial Francais	17th and 18th Centuries		American Empire	1800-1830
Victorian	1837-1901	Victoria				American Victorian	1865-1880
						Mission	1895
						Golden Oak	1900-1910
						Modern	1926
						Contemporary	Present



"SAY THOU THAT DOST THY FATHER'S TABLE PRAISE
WAS THERE MEHOGANA IN FORMER DAYS?"
BRAMCHER, "MAN OF TASTE," 1733

FOUR CENTURIES OF MAHOGANY

It is usual, in any survey tracing the use of Mahogany historically, to concentrate on its Golden Age, the 18th century and the first quarter of the 19th. Justly, for it was during this period that furniture first took on the size and design with which we are familiar today. It was this period, also, which witnessed the rise of the great Georgian master craftsmen, of Chippendale, the Brothers Adam, Hepplewhite, Shearer and Sheraton, and their contemporaries in America, Duncan Phyfe, William Savery and others. In sheer beauty of design, craftsmanship and in the selection of fine materials the furniture of this period has never been surpassed. Because it was usually made of Mahogany, it established this wood as the first choice for fine furniture ever since.

The Sixteenth and Seventeenth Centuries

Even before its Golden Age, however, Mahogany was playing a romantic role. There exists today, for example, preserved in the cathedral at Ciudad Trujillo, formerly Santo Domingo, a rough hewn Mahogany cross inscribed: "This is the first sign planted in the center of this field to mark the beginning of this magnificent temple in the year 1514." That inscription is our earliest record of the use of Mahogany. The cathedral which houses it, completed in 1540, is itself richly embellished with carved Mahogany, some of it considered the finest in the world and still in splendid condition after over four centuries in the tropics.

It was natural, of course, that Mahogany should see its first service close to one of its richest sources. And it is because of this relationship that we owe its first introduction into Europe, like that of tobacco and other prizes discovered in the New World, to the sea rover, the pirate, the buccaneer. Cortez saw Mahogany used for boats in Santo Domingo and straightway adopted it for his own. Sir Walter Raleigh likewise, and the story is that when he returned to England in 1595 and Queen Elizabeth saw and admired the new wood, with customary gallantry he immediately commissioned his ship's carpenter to make her a Mahogany table! This, if true, was the first use of Mahogany in England.

Another story of the popularizing of Mahogany in England is that of Dr. Gibbons, who, in 1724 obtained samples from a sea captain brother to investigate its medical properties and had a candle box made by one Wollaston. The Duchess of Buckingham admired the box, had a table made of the same wood and thus started the fashion for Mahogany.

Meanwhile, however, we know from record that some quantity of Mahogany was making its way to both England and the North American colonies in pirate treasure ships. A record from the Colonial History of New York states: "A Spanish ship was captured loaded with Mahogany, copper and some canella in October, 1654." And



MAHOGANY TABLE AND CHAIR — SANTO DOMINGO, EARLY 16TH CENTURY

the London Gazette for February 22-25, 1702, carries: "By Principal Commissioners for prizes on Wednesday the 3rd of March next, at nine in the morning will be exposed to publick sale by the candle at Salters Hall in St. Swithern's Lane, London, out of Mary Man of War and the remaining goods out of the 'Little Galeon called Mary's Prize' Nicaragua and Mahogany wood and out of the 'Galeon Tauro or Somerset's Prize' tobacco, sugar, cocoa, brazilletto, Mohogany, ebbone and logwood . . ."

The first known European use of Mahogany was for the chanting desk, choir stalls, doors and for cases, shelves and desks in the great library, of the Escorial, begun by Phillip II of Spain in 1563 and completed in 1584. Its earliest known use in England was in Nottingham Castle, built in 1680.

Strangely enough, the earliest mention of Mahogany in England yet discovered uses the French name "Acajou." John Evelyn in his "Silva," 1662, says, "There are many kinds of wood in the Western Indies (besides Acajou) that breed no worms." The first recorded use of the name was "Mohogeney" in Ogilby's "America" in 1671. Although the origin of the name is lost, it is thought to be an anglicized form of a native West Indian name. The name still used throughout the Spanish speaking Caribbean area and in Central and South America is "Caoba."

The Golden Age

1715 - 1825

While Mahogany thus was known and used during the 17th century, it was not until after 1715 that it came fully into its own and the Golden Age of Mahogany can be said to have begun. Prior to this time the bulk of furniture in Europe was heavy, almost grotesque in style, and, since the cost of a cargo of Mahogany in those troublesome days made it an almost prohibitive luxury, was made largely of native woods.

In his book, "English Homes of the Early Georgian," however, H. Avery Tripping mentions the use of Mahogany as early as 1671, "while," he says, "in the reign of Queen Anne, it gradually supplanted walnut in the cabinetmaker's esteem." In MacIver Persival's "Old English Furniture," polished Mahogany tables for cards and tea are mentioned, which could be shut and placed against the wall when not in use. Singleton, Symonds and Gillingham have all shown that Ma-

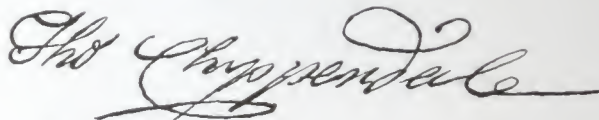
hogany was being used regularly though in a limited way in both England and in the Colonies as early as 1700. And by 1715, when the styles we know as Queen Anne were fairly well established, Mahogany was readily available.

The influence of the new wood itself on the styles and craftsmanship which distinguish the period is unmistakable. As Charles O. Cornelius, former Curator of the Metropolitan Museum, has put it, "All of the skill and enthusiasm of the English craftsmen seem to have been called forth by the qualities which he found in the new wood. Certainly a great part of the cabinetmaker's success in middle 18th century England is due to the inspiration which comes from handling a material related to its purpose."

We have in addition the tribute of the 18th century master designers themselves. Preserved from the records of Thomas Chippendale is the following:

NOSTELL PRIORY

June 30, 1767 — To a large Mahogany library table of very fine wood with doors on each side of the bottom part and drawers within, carved and ornamented and the whole compleatly finished in the most elegant taste-----£72.10.0

A handwritten signature in cursive script, reading "Tho Chippendale". The signature is written in dark ink and is positioned below the inventory entry for Nostell Priory.

And Thomas Sheraton left us this: "Of all woods, Mahogany is the best suited to furniture where strength is demanded. It works up easily, has a beautiful figure and polishes so well that it is an ornament to any room in which it may be placed. Other woods, formerly used for cabinetwork, are quite laid by since the introduction of Mahogany."

The first effect of the increasing use of Mahogany was a tendency to lighten structural parts. As soon as it was discovered that its strength rendered practical its use in smaller sections, as in table and chair legs carved to a delicate cabriole and used without bracing stretchers, specially tempered tools were manufactured to work the new wood. Experiment with veneer and inlay produced new and extremely beautiful surface effects. And thus inspired, the creative genius of the 18th century produced for its own posterity and ours the most nearly perfect furniture that has ever been known.



QUEEN ANNE
A FINE EXAMPLE OF THE
EARLY USE OF MAHOGANY.
ENGLISH, (CIRCA 1720-1730)

QUEEN ANNE

Thus, although the reign of Queen Anne ended in 1714, the Golden Age of Mahogany may be said to have stemmed from styles established during it. It is a fact that the best of them persisted long after. Arthur DeBles in "Genuine Antique Furniture" designates the period 1714 to 1725 as "Decorated Queen Anne" and by then Mahogany was readily available and a strong influence on both design and construction.

It is in Queen Anne furniture, then, that the tendency toward lighter, more graceful furniture is first established. The Queen Anne chair was the first made to fit the human form. It is in addition distinguished by simple lines, the cabriole leg and the club foot, and shows only a restrained decoration. Furniture of this design is authentic as well as extremely beautiful in Mahogany.



THE PRIDE OF THE PENDLETON COLLECTION,
RHODE ISLAND SCHOOL OF DESIGN. THE
CARVING ATTRIBUTED TO GRINLING GIB-
BONS, THE GREATEST ENGLISH NAME IN
THAT ART, WHO DIED IN 1720. WALLACE
NUTTING CLASSIFIES THIS MAHOGANY CHAIR
AS QUEEN ANNE

EARLY GEORGIAN

1720 - 1740

The Early Georgian period, sometimes called the Early Mahogany Period, though distinguished by no outstanding names, saw the development of carved decoration, the shell, the acanthus, "C" scrolls, bird and animal claw and ball feet, and an accelerated use of Mahogany. Social usage of the time, particularly tea drinking, called forth all kinds of tables and put special premium on all types, especially tilt-top, that could be put aside until required, and on side

chairs that could be drawn up closely. Wall furniture was inspired by the classical designs of such architects as Kent, Wren and Chambers. The masterpiece of the period was Houghton Hall, home of Robert Walpole, premier of England, in which Kent used whole cargoes of Mahogany for woodwork and furniture.

THOMAS CHIPPENDALE

1718 - 1779



CHIPPENDALE WAS MOST FAMOUS FOR
HIS CHAIRS OF WHICH THIS IS A
TYPICAL EXAMPLE

Beyond doubt the leading fashionable cabinetmaker of London from 1750 to 1775 was Thomas Chippendale, so much so that his name has long stood for his period in spite of equally talented contemporaries. The finest examples of Chippendale style, most of them made of Mahogany, are peers of any of the great furniture of the world. They are soundly yet spiritedly designed, their joinery is perfection, their carving crisp

and exquisite and their color and texture deep and rich.

Chippendale worked with four motifs, Queen Anne, Gothic, Chinese and French. His first, an improvement of decorated Queen Anne and artistically his finest, showed flowing curves. In chairs he replaced the fiddle shaped splat with the delicate ribbon back, the cabriole leg and Dutch foot with ball and claw. From this in turn he developed a straight leg of grace and charm.

ROBERT ADAM

1728 - 1792



CHAIR IN ADAM STYLE DECORATED
MAHOGANY

Robert, best known of the three Adam Brothers, returned to England from extensive travels in 1762 and soon established himself as arbiter of architectural and decorative taste. His work included not only building, but every detail of furnishing and decorating. Much Mahogany was used in executing his designs.

His style, influenced by the delicately scaled work then just discovered at Pompeii and Herculaneum, shows much use of ornament derived from classical architecture, such as fluting and the garland. In Mahogany this ornament was executed in carving. His work is distinguished also by chair and table supports fashioned on straight, vertical lines.



HEPPLEWHITE DESIGNS WERE MANY,
BUT THE SHIELD-BACK CHAIR
IS BEST KNOWN

GEORGE HEPPLEWHITE

1720 - 1786

Hepplewhite is better known than many of his contemporaries because of his book, "The Cabinet-Maker and Upholsterer's Guide," published by his wife Alice two years after his death. One of those contemporaries was Thomas Shearer, who worked with him and contributed plates and designs for his book.

A practical worker, Hepplewhite had a natural love for Mahogany, utilized its strength in furniture of lighter structure and reduced size, its smooth surface and brilliant grain in decoration. Creating first in the Adam mode, he later developed his own shield-back chair. His typical sideboard, evolved from Adam's three-piece arrangement of side table and two pedestals, is most often serpentine, with convex center and concave ends, square tapered legs and spade feet and fronts inlaid in ovals.



CHAIR, SHERATON STYLE

THOMAS SHERATON

1751 - 1806

Sheraton was not only a cabinetmaker but a designer, teacher and writer, a master of geometric design but a business failure, who lived and died in poverty. His actual handiwork is unknown, and it is not believed that he did any cabinetwork after coming to London in 1790. His designs are ours through his imitators, and through "The Cabinet Maker and Upholsterer's Drawing Book," published in 1794.

His furniture is feminine in appearance, though structurally very durable. He, too, was partial to Mahogany, enlivening it with inlays and borders of light woods and with carving. He favored the oval, lyre, latticework and slender urns, carved splats and banisters, and both the square and turned leg, finely tapered, often with spade or thimble toe. Sheraton sideboards, unlike those of Hepplewhite, typically show deep convex ends.



LOUIS XV UPHOLSTERED CHAIR

LOUIS XV

1715 - 1774

The Louis XV period is considered the most distinctive decorative style in history. Like that of the Louis XIV period, 1643 - 1715, furniture of the Louis XV period is typically ornate in style. But Louis XV pieces are designed on a smaller scale and thus are better adapted to smaller rooms. Their elaborate carving and decoration also avoid the careful symmetry used in the former period, and follow a decorative theme that may well be called Chinese.

An example of the extent to which Mahogany was used during the period of Louis XV is the purchase by Madame de Pompadour of six solid Mahogany commodes for 768 livres!



CHAIR, LOUIS XVI STYLE

LOUIS XVI

1774 - 1793

The trend toward furniture of smaller size and greater refinement which was observed in the Louis XV period gained in that of Louis XVI, resulting in pieces that are characteristically of delicate scale, smaller in structure, simple and graceful in appearance and of refined taste in ornamentation. No particular feats of balance were attempted either in chairs or larger pieces of furniture. Like chairs, sofas and other pieces stood on slender, tapering legs

free from underbracings. In them, as in the furniture of Robert Adam, a return to straight lines and classical decoration shows the artistic influence of current excavations in Italy. They exhibit also a decided preference for Mahogany.

Simple forms of French furniture as made in the Provinces, based on Court styles, principally Louis XVI, are being reproduced in a limited way today under the name "French Provincial."



ARM CHAIR, FRENCH EMPIRE STYLE

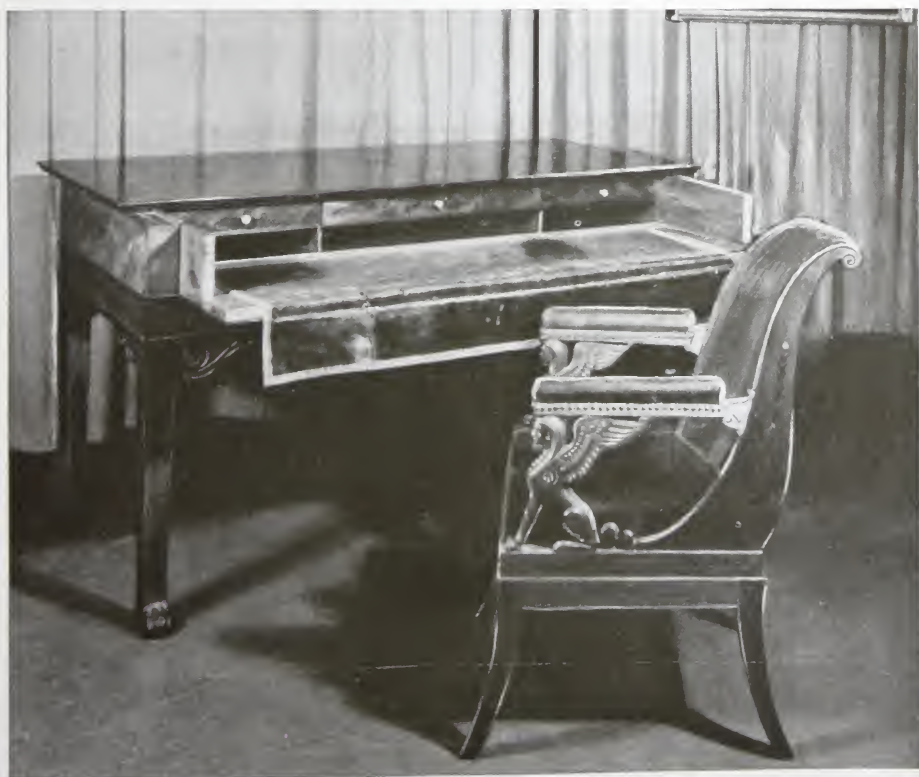
FRENCH EMPIRE

1795 - 1814

Historically speaking, the French Empire period in furniture includes also the Directory, 1795 - 99, and the Consulate, 1799 - 1804. Throughout, however, the influence of Napoleon on the French designer is explicit. It shows up typically in Greek, Roman and Egyptian characteristics, and results in wood furniture that should have been cut from stone. The lines are stiff and ungainly, the forms

straight and angular. Ornament is chiefly metal or gilding.

English furniture of Empire inspiration, much better than the original, is best known today as English Regency. In the United States, this same style was greatly improved by Duncan Phyfe and others. These developments at their best, made generous use of fine Mahogany and are a real contribution to furniture art.



NAPOLEON'S DESK AND CHAIR. HERE THE EMPEROR SIGNED HIS ABDICATION IN 1814.



EARLY AMERICAN LADDERBACK CHAIR

COLONIAL AMERICAN

Pre-Revolutionary

In Colonial America prior to 1700 furniture was of two types. The primitive type, beginning with the first settlements, was made by local carpenters, wheelwrights or joiners, of the woods at hand, usually crude, always substantial and functional.

As the Colonies developed, however, wealthy planters of Virginia and leading citizens of the seaboard cities from Boston to Philadelphia began to import fine furniture from England. Gradually, too, the Colonies developed or received from Europe, cabinetmakers and joiners who were the equal of foreign craftsmen.

The primitive type of Colonial American furniture, to be sure, continued to be made, is being made today. But after 1700, native cabinetmakers, together with recruits from the finest workshops in England were competing with Europe. From the record that has come down to us in heirloom furniture of this period and by the testimony of contemporary writers, furniture produced in this country during the 18th century not only followed the general style of that produced in England, frequently with interesting and beautiful variations, but, especially after 1750, was fully its equal. By that time the master craftsmen of Salem, Newport, New York and Philadelphia were making furniture that never has been surpassed.

The great cabinetmakers in America in the 18th century were workers in Mahogany. The record of the sales of American antiques proves this point. Year after year, Mahogany antiques are the most numerous and bring the record prices. Additional testimony is the close association of Mahogany with names and events that loom large in American history. Thomas Jefferson wrote the Declaration of Independence on a Mahogany desk. It was on a Mahogany desk that James Madison drafted the ideas that later became the Constitution of the United States. In Independence Hall are preserved the Mahogany furnishings used by our earliest Congress. Peter Faneuil, Paul Revere, Governor Winthrop, George Washington, Alexander Hamilton, Patrick Henry, these are but a few of those whose homes were made beautiful with Mahogany furniture.



REPRODUCTION OF DUNCAN PHYFE
CHAIR PRESENTED TO FEDERAL HILL
BY LAFAYETTE, WHERE "MY OLD
KENTUCKY HOME" WAS WRITTEN

FEDERAL AMERICAN

Post Revolutionary

The American Revolution marked to some extent the decline of the influence of Chippendale in American cabinetmaking, and very definitely marked the ascendancy of the styles of Hepplewhite and Sheraton. In Philadelphia especially, the influence of Chippendale continued in chairs and highboys and lowboys until the end of the century. But by the turn of the century Federal American styles, though typically of Hepplewhite-Sheraton origin, were shifting to modifications of the French Empire under the leadership of Duncan Phyfe. Many authorities hold that Federal American styles are among the most attractive ever produced. Certainly they are enormously popular in modern reproductions. In both antique and reproduction Federal American furniture, Mahogany is the chief wood, with liberal use of the crotch figure.



REPRODUCTION OF MAHOGANY COLONIAL WILLIAMSBURG FURNITURE



DUNCAN PHYFE LYRE BACK CHAIR

DUNCAN PHYFE

1768 - 1854

Duncan Phyfe was the first outstanding furniture designer in America. Born in Scotland, he came here with his parents at the age of sixteen, settled in Albany and eventually went into business for himself. He came to New York in the early 1790's, won the patronage of the John Jacob Astor family, and by 1800 was the foremost furniture designer of the country.

His style, though influenced first by Adam and Sheraton, later by the French Directory and early Consulate, shows throughout the stamp of his own unmistakable genius. Duncan Phyfe furniture has balance, structural integrity and economy in construction. He is most noted for his chairs and tables, in which he used the lyre, brass ferrule, Pompeiian designs and graceful outcurved legs. The work for which he is most famous is largely in Mahogany. That produced after 1830, during what he himself derided as his "butcher" period, happily was not of Mahogany.



THIS IS ONE OF THE CELEBRATED CHIPPENDALE MAHOGANY WING CHAIRS OF WHICH THERE ARE FIVE KNOWN, MADE AS SAMPLES BY BENJAMIN RANDOLPH, PHILADELPHIA (CIRCA 1760), WHO SHOWED HIMSELF BY THIS WORK A SUPREME CHAIR MAKER. THIS CHAIR BROUGHT \$33,000.00 AT THE REIFSNYDER SALE IN 1929, THE HIGHEST PRICE EVER PAID FOR A CHAIR

OTHER AMERICAN CABINETMAKERS AND DESIGNERS

During the last half of the 18th Century America had many first class cabinetmakers, whose work excelled in both design and craftsmanship. All of them worked largely in Mahogany.

The most important of these were: ELIJAH AND JACOB SANDERSON, (1751-1825), Salem, (1757-1810). Salem's most noted cabinetmakers, shipping furniture to southern cities and to South

America. They employed Samuel McIntire, Daniel Clark and others of Salem's best craftsmen.

SAMUEL MCINTIRE, (1757-1815) Salem, architect-designer and woodcarver. Drafted and cut patterns and carved chairs. His most noted work now in the Peabody house in the Museum of Fine Arts, Boston.

JOHN GODDARD, (1723-1785) Newport, noted for his block front desks and for his careful matching of Mahogany. In his will he bequeathed his stock of Mahogany to his wife.

JOSHUA DELAPLANE, (1690-1771) New York. Substantial craftsman with prominent clientele and an early worker in Mahogany tables and cabinets.

WILLIAM SAVERY, (1721-1787) Philadelphia. Cabinetmaker. Best known of the Philadelphians and famous for his Mahogany highboys and lowboys. Much Philadelphia furniture carelessly attributed to him.

JOHNATHAN GOSTELOWE, (1744-1806) Philadelphia. Famed as a cabinet and chair maker, a major in the Revolutionary Army.

JOHN GILLINGHAM, (1735-1791) Philadelphia. Cabinet and chair maker, noted for Gillingham chairs with trefoil back. James Gillingham was a nephew.

THOMAS AFLECK (From Aberdeen), (1763-1795) Philadelphia. A leader of the Philadelphia-Chippendale school. Furnished Congress Hall in Mahogany. Deported as a Tory.

BENJAMIN RANDOLPH, (1762-1792) Philadelphia. Ranks with Afleck as craftsman and successful business man. Made the Reifsnnyder Chippendale Mahogany chair that sold for \$33,000.

JOHN FOLWELL, (-1786) Philadelphia. Cabinetmaker and designer. "The Chippendale of America." Made the famous Speaker's chair in Independence Hall.

THE NINETEENTH CENTURY



THE SPRINGFIELD ROCKER, REPLICA OF THAT
USED BY ABRAHAM LINCOLN

The nineteenth century's greatest contribution to furniture was the development of woodworking machinery and the introduction of machine-made furniture. Today we owe much to this development. With great machines now supplanting hands, performing intricate cabinet operations with uncanny exactness and most amazing speed, serviceable and in some cases beautiful furniture can be turned out at low cost and in enormous quantity.

In its beginning, however, machine-made furniture was not an unqualified benefit. Nineteenth century America was too busy building a nation to have much thought for art and beauty. At the same time it was definitely intrigued with its own prowess with machinery. Much of the gingerbread, many of the gew-gaws, knick-knacks and folderols associated with nineteenth century homes are the inevitable result of the over-enthusiasm with which we greeted the miracle of machine production.

As a result most of the furniture styles evolved during the nineteenth century are all but forgotten, or, if remembered, are mentioned without regret. Nevertheless, this period actually saw much activity in furniture design. It witnessed the rise and fall of Victorian, Eastlake, Empire—a revival—, Mission, L'Art Nouveau, English Arts and Crafts and Golden Oak. Marta K. Sironen in "A History of American Furniture" gives interesting account of these. Meanwhile, also, a number of shops continued to turn out handmade Mahogany furniture of high quality. Their volume, however, as compared with that of the furniture factory, was small.

Of the entire nineteenth century, then, the furniture style most familiar today is Victorian, not only because so many of us can remember homes in which it predominated but because Victorian underwent several years ago a limited revival. The market consequently offers Victorian reproductions, especially chairs and sofas of Louis XV ancestry. Most of these pieces are of Mahogany, and because they retain the quaintness of Victorian without its excess in line and decoration, they are actually more pleasing than the originals.

MODERN

So-called Modern, which has for the past decade or so constituted our most spectacular furniture style, seems now to have been misnamed. The early Modern of the twenties was characterized by boxy forms, sheer surfaces, usually unsymmetrical, and in case goods especially, concealed structural parts. In time it acquired the "waterfall" front, went "gingerbread" in veneer treatment, took on anaemic "blonde" finishes and rapidly became as "borax" as the nameless furniture that it largely replaced. Mahogany played only a minor role in "boxy" Modern, none in "borax" Modern.

Gradually, however, as is always true of the weird, meaningless and ugly, the chaff was discarded, what was left was modified and refined. This refinement was, for the most part, reactionary. In "Swedish Modern" curvilinear forms returned. It was no longer immodest for frame parts to be exposed. Earlier platinum blonde finishes went their unlamented way. Decoration, restrained and simple, but decoration nevertheless, reappeared. And here again, modified only in the direction of simplicity, were the very same lines perfected in the



A MODERN BEDROOM SUITE IN ONE OF THE LIGHT MAHOGANY FINISHES

18th century! Finally, as Swedish Modern slipped from the foreground into its proper niche, there developed the true "American Modern."

At its best this style partakes a little from Early American, a little from 18th Century, combines it with the functionalism of the twentieth century, looks, especially in case goods, very much like simplified Colonial or Federal American and blends admirably with them in any room setting. And so Modern has at last become a distinctive contribution to the cabinetmaker's art, perhaps the first that is worthy of a permanent place in the gallery of good design since American Empire. But like American Empire it cannot be regarded as a separate development. In both design and feeling it is but a continuation of a furniture tradition that is now nearly four centuries old.

With the first introduction of Swedish Modern, Mahogany resumed its rightful position as a leading cabinet wood in contemporary design. It has continued in that position in all the forms that have development has led to wide acceptance of modern Mahogany designs for any type of fine furniture have made that position secure. One is the fact that Mahogany has been commercially available in both lumber and veneer in the large dimensions of clear stock ideally suited to Modern design. Another is the development of lovely mellow intermediate Mahogany finishes like harvest, maize, wheat, suntan and ambertone, which not only helped eliminate earlier bleached finishes but have almost entirely supplanted them. Quite naturally this development has led to wide acceptance of modern Mahogany designs in darker traditional finishes, so that light and dark are frequently combined with pleasing results.

With the opening of the present war, Modern was still in the development stage. Whether that development will continue after the war, or be at least temporarily replaced by a new "modern" period, it is hard to say. But it is safe to say that fine Mahogany pieces in the current Modern style will, like traditional 18th century designs, not only survive any post war changes, but find continued acceptance in the future.

OTHER USES OF MAHOGANY

ARCHITECTURAL USES. One of the earliest and still an important use of Mahogany is for fine interior trim, for wall and ceiling paneling, doors and decorative floor borders.

CLOCKS. Mahogany is the traditional wood for hall, grandfather and other types of clocks, especially those with long cases, in which a wood that holds its shape and is impervious to moisture is essential.

PIANOS. Mahogany has been both used and abused in pianos. Many of the heavy, unnaturally dark cases of the past fifty years have done credit neither to the wood nor to the maker. Nevertheless this use of Mahogany is traditional. Its earliest example is a clavecin manufactured in England in 1790 and owned by Bach. A beautifully mottled Mahogany piano made by Duncan Phyfe in 1820 is still preserved. And today's lighter, more graceful piano is available in both traditional and light finishes.

PHONOGRAPH, RADIO, TELEVISION. Throughout the development of mechanical musical instruments for home use, Mahogany has played an important part. It was the chief wood used when the phonograph made its entrance at the turn of the century. Today radio and phono-



CONCERT GRAND PIANO OF MAHOGANY PRESENTED TO
THE WHITE HOUSE BY STEINWAY AND SONS IN 1938

graph combination cabinets, styled to harmonize with either traditional or modern home furnishings, owe much of their beauty to Mahogany. And developments to date indicate that it is destined to be of similar importance in home equipment designed for television.

OFFICE FURNITURE. The elegance of Mahogany was once inseparably associated with only the most pretentious office. Today, however, growing recognition of the psychological value of pleasant working quarters, together with the fact that Mahogany is obviously a most practical and durable wood, has led to its wide use not only in office furniture but in such equipment as filing cabinets.

**FIXTURES AND SHOW WINDOW BACK-
GROUNDS.** Mahogany has long been a preferred wood for bank, hotel and restaurant fixtures, store window backgrounds and counter and bar tops. This choice is not only because Mahogany creates a pleasing, hospitable atmosphere, but is available in the required large sizes. Counters, for example, require boards running from eight to twenty feet long and thirteen to thirty-one inches wide!



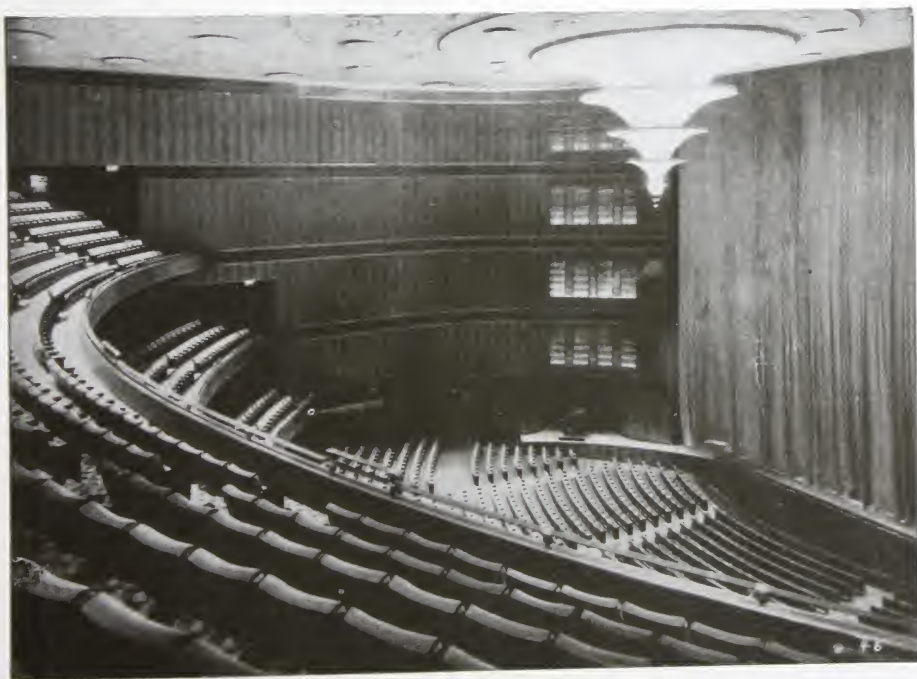
MAHOGANY GRAND-
FATHER'S CLOCK



EXECUTIVE OFFICE DESK IN MAHOGANY, GEORGIAN IN DESIGN



THE COURT ROOM IN THE \$10,000,000 HOME OF THE U. S. SUPREME COURT. THE BENCH AND FURNITURE ARE MAHOGANY, JUST AS THEY ALWAYS HAVE BEEN SINCE THE FOUNDING OF THE REPUBLIC. CASS GILBERT, ARCHITECT.



CENTER THEATER, ROCKEFELLER CENTER, NEW YORK CITY, SHOWING MODERN TREATMENT IN SHEER SURFACES. BOTH THE VERTICAL TREATMENT AND THE BANDS ARE IN MAHOGANY. REINHARD & HOFMEISTER, ARCHITECTS

HOW TO BUY MAHOGANY FURNITURE

About Antiques

The lure of the antique is a strong one, rendering gullible many an otherwise wise and careful buyer. As a result, the market thoughtfully provides an unfailing supply of manufactured "antiques" for the uninformed enthusiast.

A considerable quantity of authentic 18th century Mahogany, of undiminished beauty and in excellent condition, is still in existence. The best of it, however, has long since passed into the hands of collectors and museums, and it is only rarely that furniture still held by old families comes on the market. If it is authentic, it usually sells for high prices, doubly so if it has an interesting historic background.

Consequently, unless one has a long purse and plenty of time, is experienced or willing to pay for expert advice, it is far better to dismiss temptation and buy honest reproductions.

How To Tell Quality

When buying any style of furniture, 18th century or modern, the shopper who has determined to buy Mahogany has a distinct initial advantage. Mahogany is in fact as well as in reputation the finest furniture and cabinet wood known. Few manufacturers, even the least conscientious,



MAHOGANY SECRETARY
TAMBOUR FRONT, NEW ENGLAND
THIS REPRODUCTION FROM AN ORIGINAL IN THE FLAYDERMAN COLLECTION. ESPECIALLY INTERESTING IS THE USE OF CROUCH MAHOGANY FOR BORDERS INSTEAD OF SATINWOOD AS USED IN ENGLAND

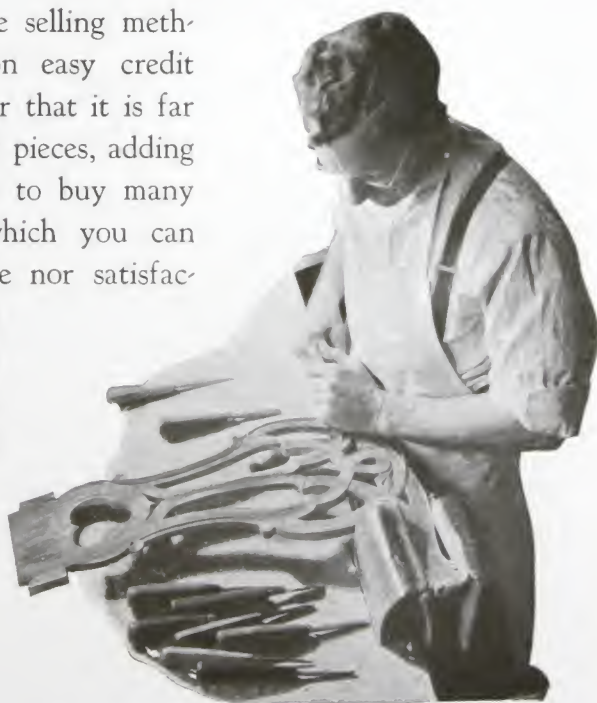
would be so impractical as to waste a first quality wood in a piece of shoddy construction and poor design.

Nevertheless, since much of the real quality of furniture is not apparent on the surface, especially to the inexperienced buyer, it is always wise to patronize only those stores that have a well established reputation for honest merchandise and honest merchandising. This is particularly true now, when wartime restrictions threaten quality.

In addition, check those earmarks of quality which you can see for yourself. Carvings should be clean, sharp and smooth. Turnings should be clean and smooth. Plywood surfaces should be smooth and flat. Stand so the light strikes a table top at an angle, and look for any waviness or depressions.

Note whether drawer interiors have clean, dove-tail or lockjoint construction and are smoothly finished. Turn up chairs to see if the frame is well joined, with tight fitting, glued and screwed corner blocks. Look for a finish that really reveals and enhances the wood. Compare the furniture you contemplate buying with furniture you know is of fine quality.

Beware high pressure selling methods, undue emphasis on easy credit terms. Always remember that it is far better to buy a few good pieces, adding others as you can, than to buy many inferior pieces, from which you can anticipate neither service nor satisfaction. And before you close the bargain, check back to make sure you have read everything carefully, including labels.



THE HAND CARVER

BEGINNING EVEN BEFORE THE DAYS OF CHIPPENDALE, CRAFTSMEN HAVE
CONSIDERED MAHOGANY THE IDEAL WOOD FOR FINE CARVING

Mahogany Labels

For if you are buying Mahogany, you want to be sure Mahogany is what you are getting. The name "Genuine Mahogany" has earned so high a standing that there is tremendous temptation to misuse it. Accordingly, low priced furniture is frequently made of such native woods as birch and gum, finished to resemble Mahogany. This so-called "Mahogany finish" must be accepted as such, not as Genuine Mahogany.

A common misuse of the name is for woods such as lauan or tanguile, found in the Philippines and from trees in no way related to Mahogany. Genuine Mahogany does not grow in the Philippines. Thus "Philippine Mahogany"—a name at present legally permissible but highly controversial—bears the same relation to Genuine Mahogany as "Hudson Seal," which is dyed muskrat, does to genuine seal.



THE DOWELL JOINT, SINCE THE 18TH CENTURY A MARK OF WELL-MADE FURNITURE, DISTINGUISHES QUALITY MAHOGANY PIECES TODAY.



BLUE LABEL, GENUINE MAHOGANY
RED LABEL, SOLID GENUINE MAHOGANY

Because of such difficulties, the Mahogany Association has authorized exclusive copyright labels and issues them to responsible manufacturers for use on their products under a license which provides severe penalties for misuse. These labels not only assure you that the piece is Genuine Mahogany, but specifically indicate whether or not it is solid or a combination of solid and Mahogany plywood. They thus form a guarantee which vastly simplifies buying problems.

"How to Identify Genuine Mahogany and Avoid Substitutes" is available from the Mahogany Association for those wishing to learn full details.

Care of Mahogany Furniture

Mahogany furniture that has been properly finished requires a minimum amount of care. An occasional waxing, using paste wax sparingly, will keep Mahogany furniture looking its best. If the furniture has been allowed to get very grimy and dirty, it is easily cleaned with lukewarm water to which a little pure soap has been added. The cloth should be well wrung out so that it is damp, not wet.



THE SURVIVAL OF THIS DELICATELY MADE 150 YEAR OLD MAHOGANY GATE-LEG TABLE IS DUE TO THE STRENGTH AND STABILITY OF MAHOGANY

To complete the job, the wood should be wiped lightly with the grain with a dry soft cloth. This method is equally effective on lacquer or varnish.

If you feel you must use furniture polish, use it sparingly and wipe clean with a soft dry cloth. Most furniture stores have polishes and waxes they recommend and will instruct you in their use. For special problems, send for bulletins on "Finishing Mahogany" and "Finish Repairing and Re-finishing," both available from the Mahogany Association.



MODERN MAHOGANY DINING ROOM SUITE IN LIGHT HONEY COLORED FINISH

WHY MAHOGANY LEADS

BEAUTY—The beauty of Mahogany is inherent in the wood itself, merely accentuated by proper finishing.

COLOR—The natural Mahogany color ranges from light pink to rich golden brown or amber. In finished form it may range from light claret to deep golden brown—never a dead, dull red.

WARMTH—Mahogany is famous for its inviting, cheery warmth.

HARMONY—Mahogany permits a wide range of color schemes.

DIGNITY—The dignity of Mahogany is proverbial. As a medium of good design, its distinction appeals to the discriminating taste.

VARIETY—Mahogany is the wood in which the many beautiful wood figures first became known. Mottle, fiddle-back, swirl, crotch, broken stripe and others were first used to describe Mahogany.

PERFORMANCE—Mahogany has a performance record equaled by no other wood. Its beauty actually improves with age.

DURABILITY—Mahogany has a proven record for great durability.

STRENGTH—Mahogany has the necessary strength for every cabinet purpose. For delicate chair legs, West Indian Mahogany has no equal among cabinet woods.

STABILITY—The unusual stability of Mahogany is proven by experience and scientific tests. In this very important characteristic it far excels competing cabinet woods.

WORKABILITY—Recent official tests abundantly confirm the well known fact that Mahogany is superior in taking woodworking tools.

PRACTICABILITY—Mahogany, properly selected and finished, is not only a beautiful wood but a practical one for everyday use.

LOW COST—The additional cost of Genuine Mahogany over less favored woods is surprisingly small. The cost of wood in furniture is seldom more than twenty per cent of its price. The rest is labor, other materials, distribution, advertising, selling and profit.

RESALE VALUE—Good Mahogany furniture has high resale value. One need only visit the auction room for evidence.

PROVEN EXCELLENCE—Modern scientific laboratory tests but confirm the tradition of excellence in Mahogany.

GENERAL SUPERIORITY—Mahogany has so many fine qualities that it is truly the measure by which other cabinet woods are judged. One wood may equal Mahogany in one characteristic and another in another, but in Mahogany are combined to a rare degree the many qualities desired by the master craftsman.

ACKNOWLEDGMENT

We appreciate the help and co-operation of manufacturers who make furniture that is correct in design, sound in workmanship, materials and finish. We acknowledge the aid of leadership stores and decorators who believe the American home is entitled to furniture of beauty, utility and permanence. We sincerely thank the creative designers whose vision and inspiration bring us the beauty of both the traditional and modern in furniture expression. And we pay a tribute to the writers on home furnishings who day by day build an active and constructive appreciation of the fine, the beautiful and the true among their millions of readers.

INFORMATION

For additional information relative to Mahogany and Mahogany products address the Mahogany Association, 75 East Wacker Drive, Chicago.


*"After all there's Nothing
like Mahogany"*

A close-up photograph of a wood grain showing a crotch figure, characterized by a dense, wavy pattern of light and dark brown lines that create a complex, almost cellular appearance.

1 Crotch Figure

A close-up photograph of a wood grain showing a highly figured swirl, with a dense, swirling pattern of light and dark brown lines that create a complex, almost cellular appearance.

2 Highly Figured Swirl

A close-up photograph of a wood grain showing a plain swirl, with a dense, swirling pattern of light and dark brown lines that create a complex, almost cellular appearance.

3 Plain Swirl

A close-up photograph of a wood grain showing a figured flat cut, with a dense, swirling pattern of light and dark brown lines that create a complex, almost cellular appearance.

4 Figured Flat Cut



5 Fine Mottle-Bees Wing



6 Large Block Mottle



7 Plain or Flat Cut



8 Mottled Broken Stripe

From Flat Cut to
Swirl and Crotch.

9

10

15

11

12

17

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19





[21] Fiddle-back Figure

A close-up photograph of a wood grain showing a 'Fiddle-back Figure'. The grain consists of alternating, slightly wavy vertical lines of light and dark brown, creating a rhythmic, undulating pattern.



[22] Mottle and Fiddle-back

A close-up photograph of a wood grain showing a 'Mottle and Fiddle-back' pattern. The grain features a complex, irregular pattern of light and dark brown patches, with some areas showing more pronounced wavy lines.



[23] Plum Pudding - Rare

A close-up photograph of a wood grain showing a 'Plum Pudding' pattern. The grain is characterized by a dense, irregular pattern of light and dark brown patches, resembling the mottled appearance of plum pudding.



[24] Blister Figure - Rare

A close-up photograph of a wood grain showing a 'Blister Figure' pattern. The grain features a complex, irregular pattern of light and dark brown patches, with some areas showing more pronounced wavy lines.

A close-up photograph of a wood surface showing a quartered grain pattern. The wood grain is oriented vertically, with the growth rings appearing as a series of closely spaced, slightly wavy vertical lines. The color is a warm, golden-brown.

25 Plain Stripe, Quartered

A close-up photograph of a wood surface showing a broken stripe pattern. The wood grain is oriented vertically, with the growth rings appearing as a series of closely spaced, slightly wavy vertical lines. The color is a warm, golden-brown.

26 Broken Stripe

A close-up photograph of a wood surface showing a wide broken stripe pattern. The wood grain is oriented vertically, with the growth rings appearing as a series of closely spaced, slightly wavy vertical lines. The color is a warm, golden-brown.

27 Wide Broken Stripe

A close-up photograph of a wood surface showing a rope figure pattern. The wood grain is oriented vertically, with the growth rings appearing as a series of closely spaced, slightly wavy vertical lines. The color is a warm, golden-brown.

28 Rope Figure

21

33 Flat Cut - *Narrow Heart* - *Stripy Edges*

34 Plain Flat Cut - *Narrow Heart*

23

35 Faux Swirl

36 Faux Swirl

A close-up photograph of a single piece of wood with a warm, orange-brown finish. The grain is characterized by a dense, swirling pattern of fine lines and larger, irregular knots, creating a complex, organic texture. The lighting highlights the natural variations in the wood's color and grain structure.

31

1 piece
swirly
flat cut

A close-up photograph of a two-piece wood panel with a warm, orange-brown finish. The grain pattern is a 'matched swirly' design, where two separate pieces of wood are joined so that their swirling grain patterns align perfectly, creating a symmetrical, mirror-like effect. The texture is smooth and the color is consistent across the joint.

32

2 piece
Matched swirly
flat cut



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